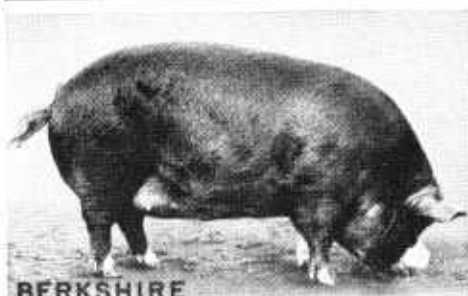


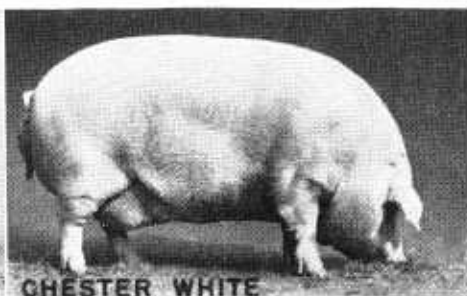
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BREEDS of SWINE



BERKSHIRE



CHESTER WHITE



POLAND CHINA



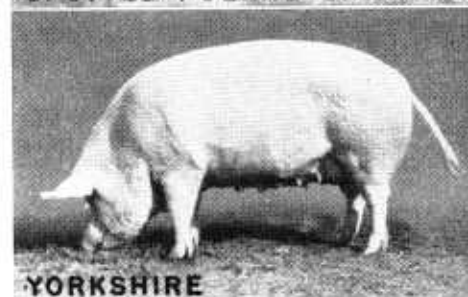
DUROC



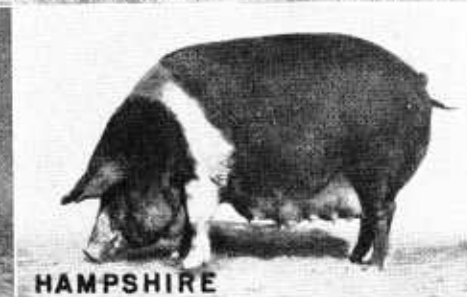
SPOTTED POLAND CHINA



TAMWORTH



YORKSHIRE



HAMPSHIRE

FARMERS' BULLETIN NO. 1263
U. S. DEPARTMENT OF AGRICULTURE

THE purpose of this bulletin is to present in a concise manner the most important features regarding the principal breeds of swine in this country, and the relationship of purebreds to the commercial swine industry. For information regarding the rules of registry and the issuance of herdbooks, or for lists of breeders, the reader is referred to the individual associations. The officers and sometimes the addresses of the breed-record associations change from time to time; hence they are not included in this bulletin. But, on request, the Bureau of Animal Industry will furnish the names and addresses of the secretaries of established associations as last reported.

Although encouraging the development of improved types of swine and other livestock, the Bureau of Animal Industry has no jurisdiction over the registration of animals or the operation of the respective associations.

Acknowledgment is made to swine record associations and breeders of purebred hogs, who furnished photographs of animals representative of present-day type.

Washington, D. C.

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BREEDS OF SWINE

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Bureau of Animal Industry*¹

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CLASSIFICATION OF SWINE

IN THE UNITED STATES there are two distinct types of swine, namely the lard type and bacon type. The lard-type hogs are raised much more extensively than those of the bacon type. The principal lard-type breeds raised in this country are the Duroc, Poland China, Chester White, Berkshire, Hampshire, Hereford, and Spotted Poland China. The only breeds of bacon-type hogs bred extensively are the Tamworth and the Yorkshire.

INDIVIDUALS MORE IMPORTANT THAN BREED

The selection of a breed is largely a matter of personal preference. There is no best breed of swine. Although there may be conditions under which one breed may do better than another, generally the best breed to raise is the one which the breeder prefers, especially if that breed is already established in the area.

The individuality of the animals is of far greater importance than the breed. About 1918 many breeders of purebred hogs began to select breeding animals of extreme size, a large proportion of which were very deficient in hams and loins. Also they were long-legged and narrow-bodied, and in many instances proved to be uneconomical feeders. Most of the farmers who bought breeding stock of this extreme type sooner or later found that they were not the most profitable type to have and discarded them in favor of hogs that were better fleshed, more compact, with good hams and broad backs, and that could be made to weigh 200 to 225 pounds at about 6 months of age. Experience has shown that extremes of type, either large or small, should be guarded against.

¹This is a revision of former editions of the same title by E. Z. Russell, who retired in 1936.

Practical hog raisers know that the most profitable hog is the one which can be grown to market weight in the shortest time and uses the least feed per pound of gain. Normally the market prefers a well-finished hog weighing from 180 to 240 pounds.

The type of hog selected for breeding purposes must not be so large and rangy that the offspring when raised for market will show an unfinished condition, nor should the type be so small or blocky that there will be an excess of fat when hogs are marketed at the preferred weights. An intermediate type meets the requirements of both producers and consumers to a greater degree than either of the extremes of type.

Prolificacy in the breeding herd is of primary importance in successful swine production. Building up and maintaining a herd of breeding animals can be done only when careful selection is practiced. It is necessary, therefore, for best results, to select the breeding animals of the herd carefully and then to provide the right kind of feed and management. One of the essentials in producing good, strong, prolific, breeding animals is plenty of exercise. An extremely short-legged, low-set breeding hog will not exercise so freely as the one somewhat larger in type.

BREEDS OF THE LARD TYPE

Within the last 30 years rather drastic changes have been made in the appearance of the lard-type hog. Formerly it was a rather low-set, broad, blocky type of animal. Today most lard-type hogs are more upstanding, having good length and depth of body, with medium width. The shoulders are full and smooth, not coarse; the hams full and as wide as the shoulders, carried back well to the root of the tail, and fleshed down within 2 inches of the hock.

During the past decade there has been a further break-down of type within the lard-type breeds, due largely to consumer demand for leaner cuts of pork. This type is sometimes referred to as the meat-type hog, midway in fatness between the extreme lard-type and the extreme bacon-type hog. The meat-type hog is one that has a high carcass cut-out value, yielding a maximum amount of high-priced cuts and a large proportion of lean to fat in these cuts. The meat-type hog is found among all the principal breeds.

The following are the principal lard-type breeds to be found in the United States:

DUROC

The Duroc breed originated in the northeastern section of the United States. It was derived from mating strains of red hogs developed in sections of New York and New Jersey. Those in New Jersey were originally called Jersey Reds; those in New York are said to have been developed by a man who owned the noted stallion Duroc, and people in that vicinity called the red hogs which this man was breeding "Duroc" hogs. Several years after the independent breeding of Durocs and Jersey Reds, these hogs were intermingled in breeding, with the result that there was formed the breed known until recently as Duroc-Jersey. The breed is now known as Duroc, the word "Jersey"

being dropped from the breed name to avoid any confusion with the Jersey breed of dairy cattle.

The Duroc breed is red in color, without admixture of any other color. Some animals, however, are dark, while others are light. There is no recognizable difference in the feeding or other qualities among hogs of the different shades of color in this breed.

From its early history the Duroc breed was noted for hardiness and prolificacy. It began to be popular in the United States at about the time Poland China breeders were producing the small type of hogs, or so-called "hot bloods." This situation had much to do with making the Duroc breed popular with the farmer. Animals of this breed had sufficient quality and hardiness to make them profitable to hog growers. In type they are now similar to hogs of intermediate to large-type Poland Chinas. The sows are prolific and are fairly good mothers.

Pigs of the most desirable type attain a weight of 200 pounds at 6 months of age and are capable of producing a greater weight if market conditions justify their being fed for a longer time. In show condition boars may attain a weight of 1,000 pounds. In breeding condition a mature boar generally weighs from 650 pounds up. An illustration of a Duroc boar is presented in figure 1. A Duroc sow is shown in figure 2. In show condition sows generally weigh from 600 to 700 pounds. In some instances a greater weight is reached.

The association for recording hogs of this breed is the United Duroc Record Association.

POLAND CHINA

The Poland China hog originated in Butler and Warren Counties, Ohio. This breed undoubtedly was derived from the crossing of several breeds. In the seventies two farmers—A. C. Moore, of Canton, Ohio, and D. M. Magie, of Oxford, Ohio—developed a widespread reputation for their hogs and advertised them extensively. Their hogs were known at that time as the Moore hogs and the Magie hogs, respectively. From these hogs the breed now known as the Poland China was developed. Breeders using the names of "Poland" and "Big China" claimed their hogs were a combination of Poland and China blood although no satisfactory evidence was produced to support this claim. The word "Poland" was traced back to an animal obtained from a farmer who was a Polander by birth. Because of common usage, the name Poland China was designated officially in 1872 as the accepted name of the breed.

The early Poland China hog was a large, rugged, coarse-eared, heavy-boned, prolific, spotted animal that attained a good market weight. During the last decade of the nineteenth century and the first decade of the twentieth century many Poland China breeders, especially those breeding for the show ring, followed what may be termed a fad in their breeding operations, to a greater degree than breeders of other breeds. The fashionable type was a short-legged, small, compact-bodied hog popularly known as the "hot-blood." It had six white points, namely, four white feet and a white splash on the end of the tail and at the point of the nose. The sows were neither prolific nor very good sucklers.

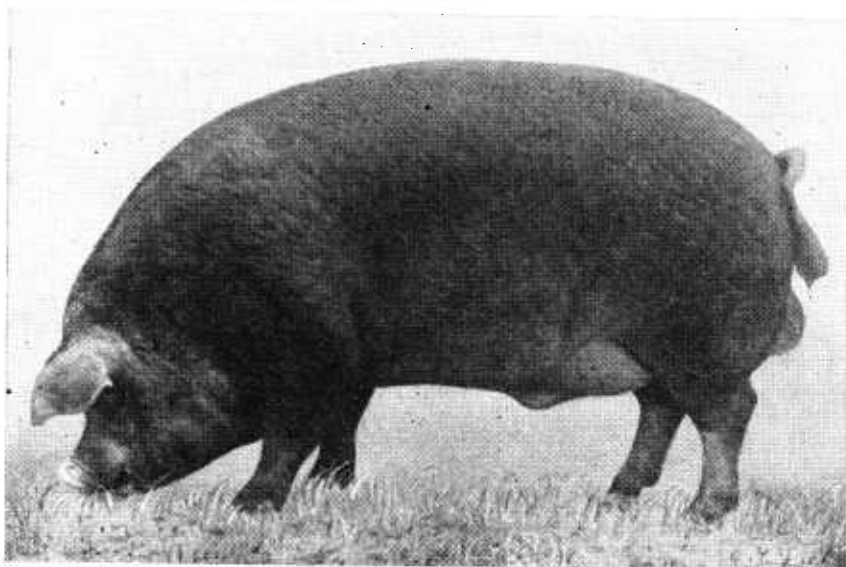


FIGURE 1.—Duroc boar.

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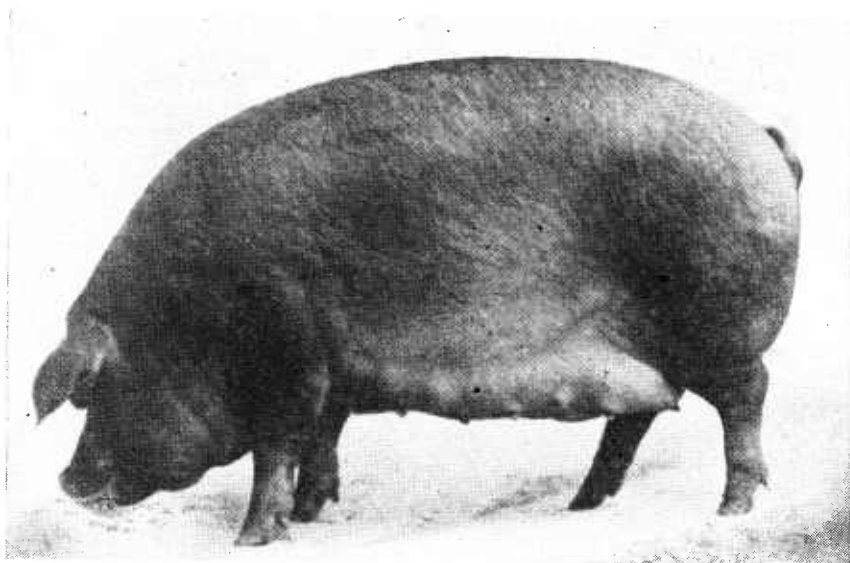


FIGURE 2.—Duroc sow.

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Since 1920 the type of Poland China hog has been changed materially. On only very few farms can one find any of the old hot-blood Poland Chinas, common up to about 1910. On a large number of farms, however, Poland Chinas of what may be termed the "medium type" are produced. Many breeders of Poland Chinas still produce the large type, but not the extremely large type, which was popular among some breeders shortly after the close of World War I.

Mature boars of this breed (fig. 3) in show condition weigh from 850 to 1,000 pounds. Some animals attain greater weights. In breeding condition mature boars should weigh from 650 pounds up and sows from 500 pounds up. A Poland China sow is shown in figure 4. The color of the present-day Poland China generally is black. Many of them have white spots on different parts of the body. Hogs of this breed often weigh 200 pounds at 6 months of age. The three record associations recording purebred Poland China hogs were combined, effective January 1946, into one association, which is known as the Poland China Record Association.

CHESTER WHITE

The Chester White breed had its origin in Chester County, Pa. The large coarse hogs found in the Eastern States, especially in Pennsylvania, early in the nineteenth century, were a mixture of the Yorkshire, Lincolnshire, and Cheshire hogs, all of which were of English origin. In Pennsylvania these hogs were crossed on smaller type hogs, but the most successful cross came through using an imported hog from Bedfordshire, England. This cross was continuously improved up to 1848, when the breed reached such a degree of purity that it could be relied on to reproduce its desirable qualities. It was named "Chester County White" in 1848, but the word "County" was soon dropped and the present name became established.

The first record association for the breed was formed in 1884, and all individuals of the breed may be traced to its records. Later there were eight different associations catering to the pedigree-recording business of the breed, and as these lessened the unity of action among the breed's advocates, the popularity that the breed had acquired during the latter half of the nineteenth century waned for a time but in recent years it has increased in popularity.

The score-card type or the standard of excellence is very similar to that of the other lard breeds of swine. Mature boars (fig. 5) of this breed weigh from 600 to 900 pounds, some individuals showing a weight of 1,000 pounds. The sows (fig. 6) weigh from 500 to 700 pounds. The record associations for the breed are Chester White Swine Record Association and Breeders Chester White Record Association.

In 1865, L. B. Silver, of Salem, Ohio, accumulated parent stock from Chester County, Pa., and used it in combination with existing Ohio stock to develop a hog which was known as Ohio Improved Chester. Today it is referred to as the O. I. C. hog. The O. I. C. Swine Breeders' Association, founded in 1897, now registers only the pedigrees of animals whose ancestors are recorded in the books of that association.

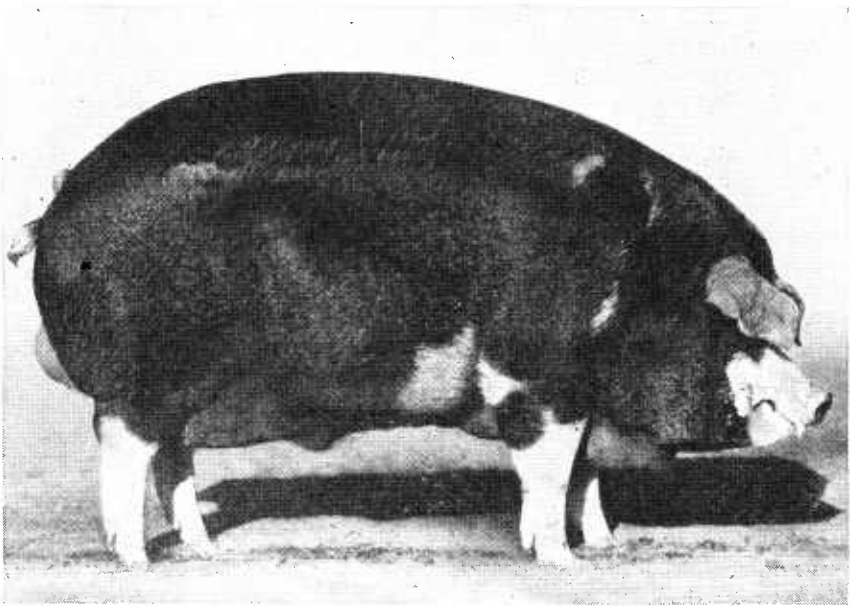


FIGURE 3.—Poland China boar.

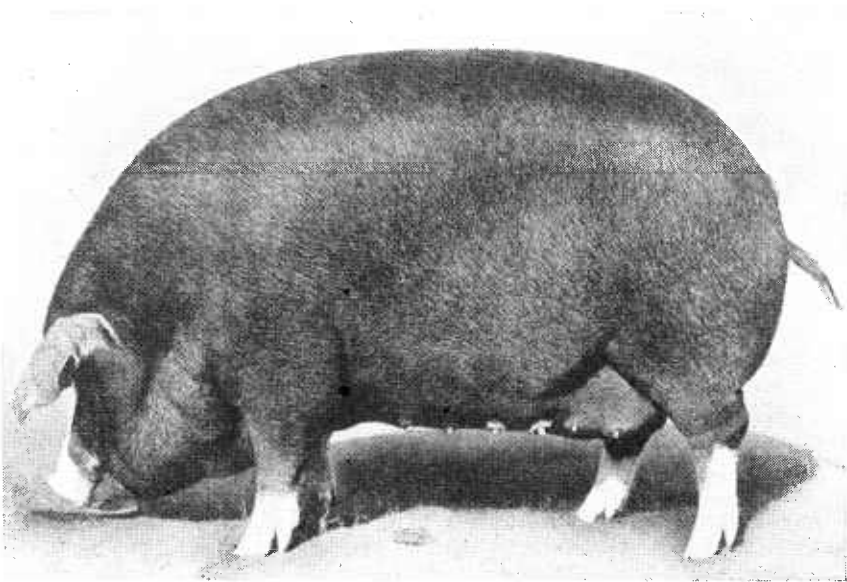


FIGURE 4.—Poland China sow.

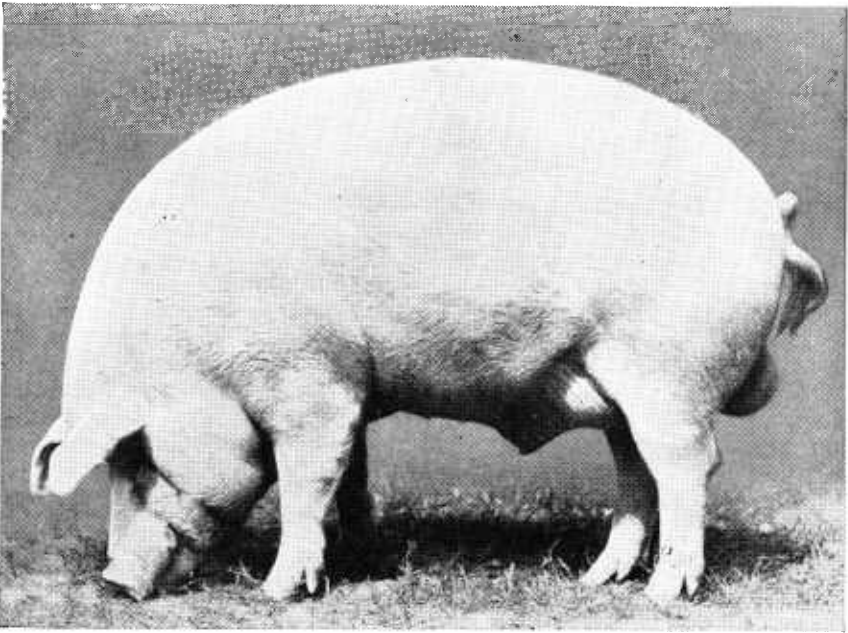


FIGURE 5.—Chester White boar.

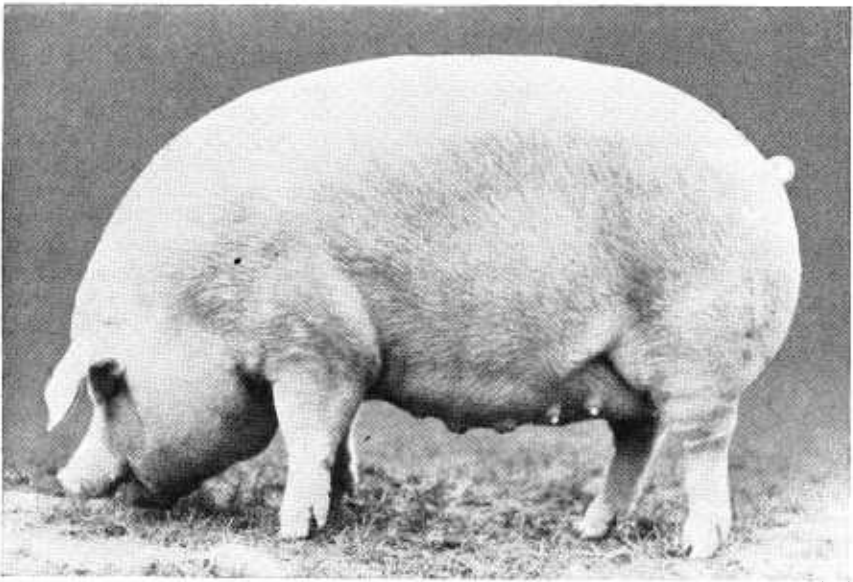


FIGURE 6.—Chester White sow.

BERKSHIRE

The Berkshire is one of the oldest of the improved breeds of swine. It was originated and developed in England and is still raised extensively in that country. Many animals of this breed have been imported into the United States and Canada from English herds. Mention is made of the Berkshire hogs in England and Scotland as early as 1789.

Berkshire hogs are of medium size, generally smooth and of good length and depth, having legs of medium length with fair-sized bone. In color this breed is similar to the Poland China, but it does not have so much white as is usually found on the Polands. Some breeders object seriously to white spots. The distinctive characteristic of the Berkshire breed is the short, upturned nose. The face is usually dished and the ears are erect but inclined slightly forward.

Good Berkshire pigs can be fed to market weight at from 6 months of age up. Mature boars of this breed (fig. 7) in good show condition usually weigh from 600 to 850 pounds. Some attain a heavier weight. Mature sows (fig. 8) should weigh from 450 to 650 pounds.

The record association for this breed is the American Berkshire Association.

HAMPSHIRE

The Hampshire breed originated in the English county of the same name and was introduced into the United States during the first half of the last century. When the Hampshire hog first attracted popular attention in the United States it was referred to as a "thin rind" hog. This breed is classed as one of the lard-type breeds. Hampshires have made rapid progress in popularity during the last 20 to 25 years.

The most striking characteristic of the Hampshire is the white belt entirely encircling the body, including both forelegs. The standard of perfection for Hampshires does not discriminate on width of belt, except that it must not exceed two-thirds the entire length of the animal. Breeding animals with white hind feet or legs are eligible for registry, provided the white does not run above the bottom of the ham.

The Hampshire in general appearance is smooth and has medium-weight bone. Pigs may be brought to marketable weights at from 6 months up. In show condition mature boars of the breed (fig. 9) weigh from 600 to 850 pounds, some attaining a greater weight. Mature sows (fig. 10) in show condition weigh from 500 to 700 pounds. Animals of the breed are alert and active.

The record association for this breed is the Hampshire Swine Registry.

HEREFORD

The Hereford hog, sometimes referred to as the "white-faced" hog, has been developed with color markings resembling those of the Hereford breed of cattle. Foundation stock used in the development of this breed was assembled as far back as 1902. The methods used in its development are not too well known, nor is there any accurate information as to the breeds that went into its foundation. However, it has been reported that hogs of Chester White, Poland China, Duroc,

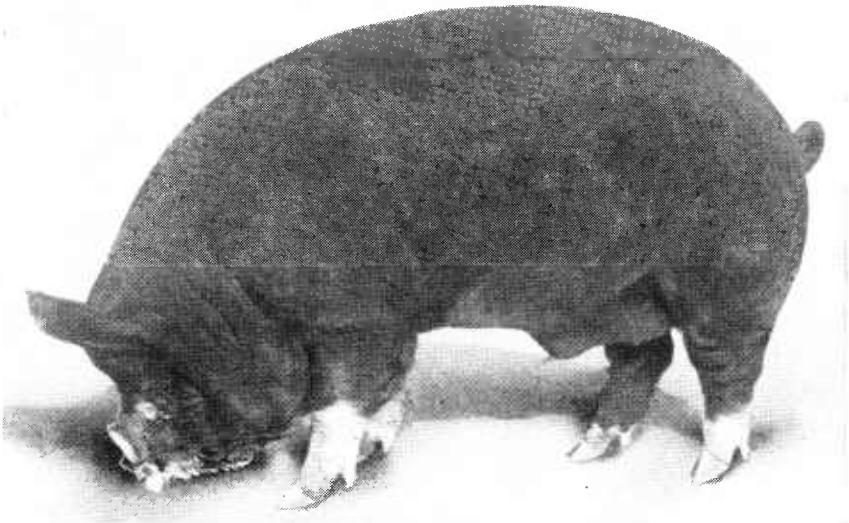


FIGURE 7.—Berkshire boar.

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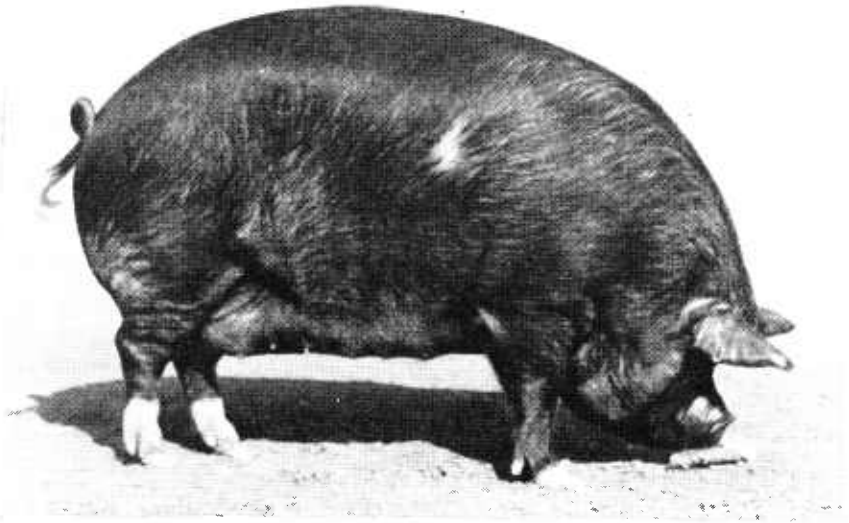


FIGURE 8.—Berkshire sow.

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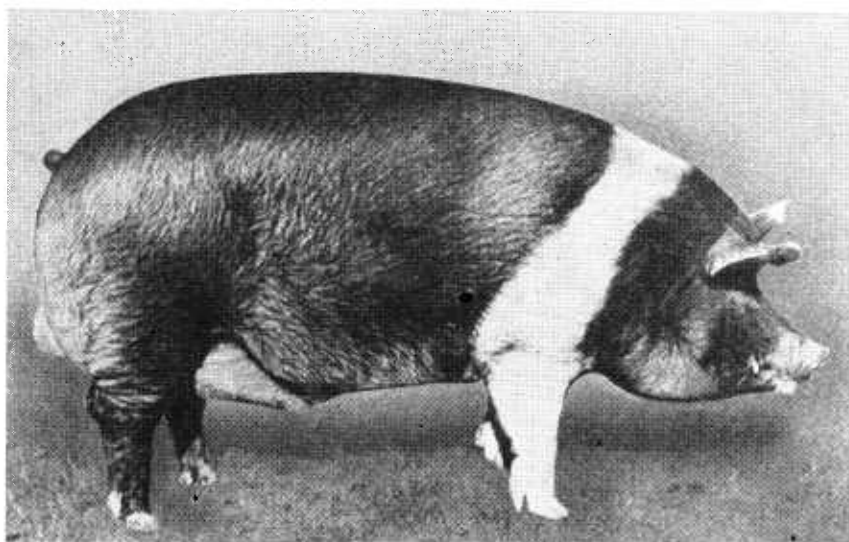


FIGURE 9.—Hampshire boar.

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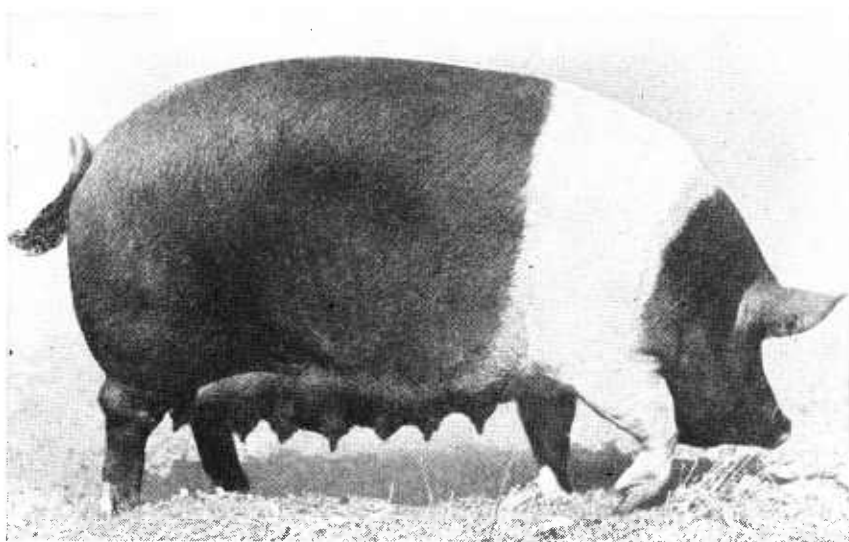


FIGURE 10.—Hampshire sow.

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and possibly Hampshire breeding were used in the early stages of development. There have been some inbreeding and selection for the desired conformation and color markings.

The standard color is red with white on the head, ears, feet, underline of body, and switch of tail. The red color may vary from light to dark red, a cherry red being preferred. Animals offered for registration must have some white on the face and must be not less than two-thirds red.

Hereford hogs are rather compact in form, having very little arch to their backs and rather short legs. In size the Hereford hog is distinctly smaller than other common swine breeds. The mature boar (fig. 11) weighs 750 pounds top weight, with the mature sow (fig. 12) weighing 650 pounds top weight. The Hereford is quick maturing, being able to finish in 5 or 6 months at 180 to 225 pounds.

The record association for the breed is the National Hereford Hog Record Association, which was formed in 1934.

SPOTTED POLAND CHINA

The Spotted Poland China in many ways is very much like the Poland China, but there is much more white on the body of the former. The appearance is rather that of a black hog with numerous white spots. The standard requirement of the present record associations for the breed is that at least 20 percent of the body surface be white. These hogs began to be noticed more during the time when there was a tendency throughout the country to get away from the hot-blood Poland Chinas. The Spotted Poland China hog, having more length and greater size than the hot bloods, attracted the attention of farmers who were looking for larger hogs. The first record association of this breed, known as the National Spotted Poland China Record Association, was organized January 1, 1914.

Some Gloucester Old Spots, imported from England into the United States as foundation animals in some herds and recorded in the Spotted Poland China Record, have influenced the type in this breed to a considerable extent. Boars (fig. 13) in show condition weigh from 650 to 1,000 pounds, and sows (fig. 14) from 500 to 700 pounds.

The present record associations for this breed are the National Spotted Poland China Record Association and the American Spotted Poland China Record Association.

BREEDS OF THE BACON TYPE

Hog growers in the United States have not raised the bacon-type hogs to any great extent. The Tamworth and the Yorkshire, of English origin, are the two breeds grown in the United States which represent this type. These breeds are not so widely distributed as the lard-type breeds.

Bacon hogs are different from lard-type hogs in that they have more length, the object of breeders being to produce the maximum amount of the highest-quality lean meat, and a minimum of lard. These breeds are well suited to the production of Wiltshire sides, which command highest prices in the London market. Animals of this type have deep sides and are comparatively narrow, with generally smoother bodies than most of the hogs of the lard-type breeds.

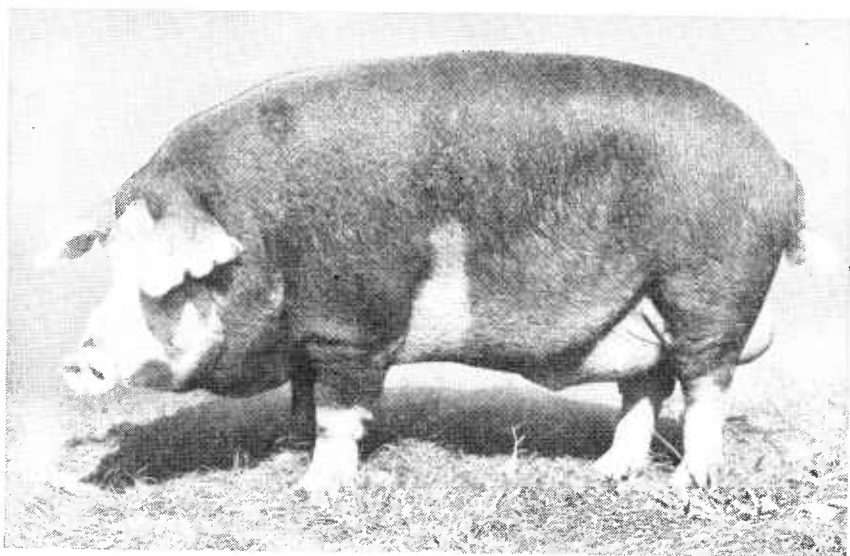


FIGURE 11.—Hereford boar.

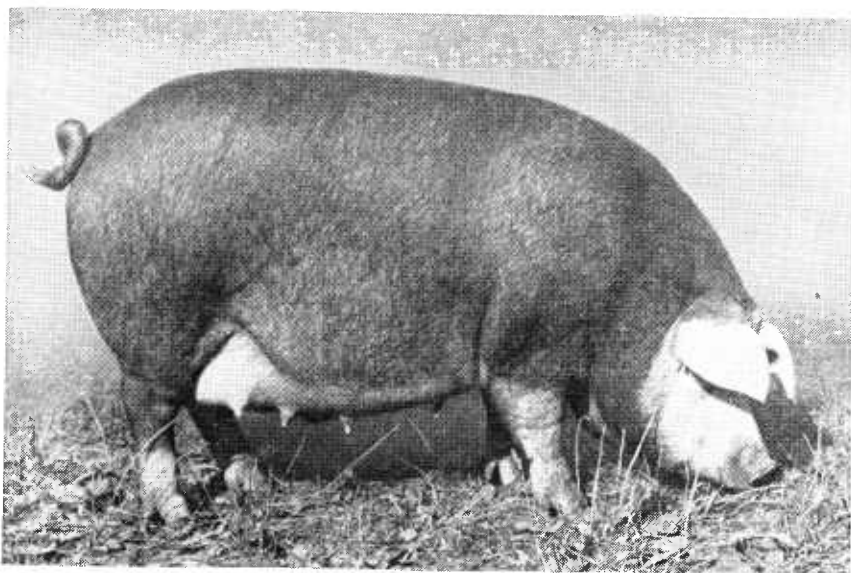


FIGURE 12.—Hereford sow.

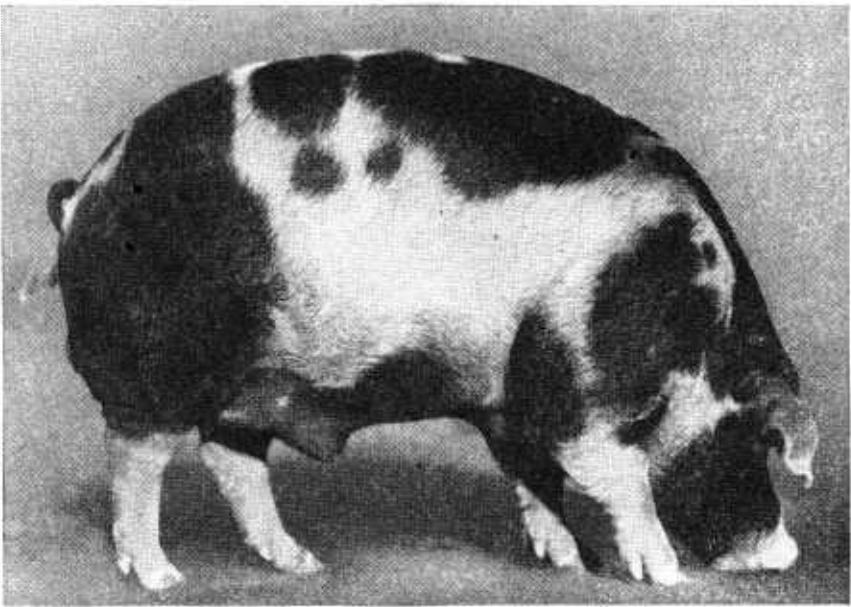


FIGURE 13.—Spotted Poland China boar.

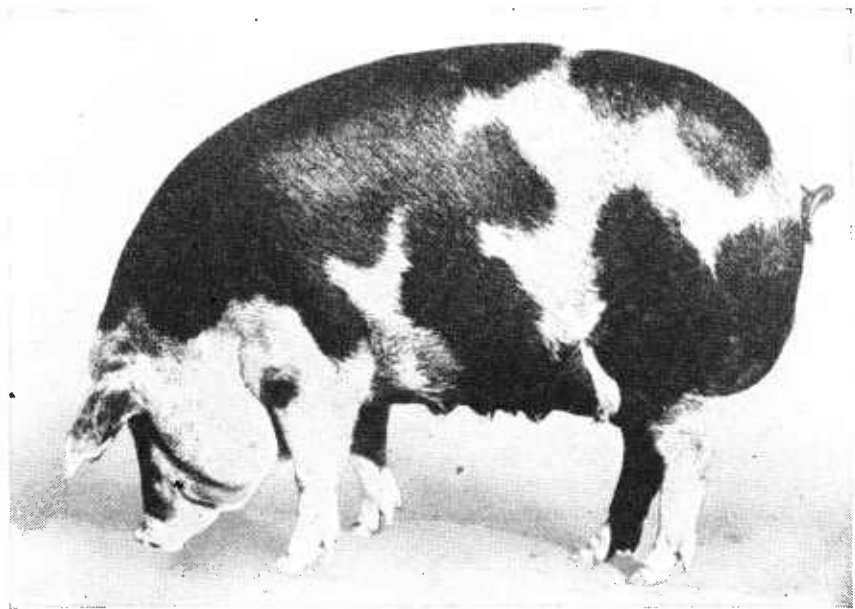


FIGURE 14.—Spotted Poland China sow.

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TAMWORTH

The Tamworth is one of the oldest of all breeds of hogs. There is evidence of pure breeding dating back more than 100 years. The name of the breed is derived from the town of Tamworth, located on the River Tame, in Staffordshire, near the north border of Warwickshire, England. Sir Robert Peel is credited with having introduced these hogs into England from Ireland about 1812, although their real origin is obscure. The first record of any of this breed having been brought to the United States appears to have been in 1881.

The color is red, varying from light to dark, and the ears are erect. Pigs of 200 pounds' weight at 6 months of age are not uncommon. They do not mature quite so early as some of the other breeds, but at the same time they attain a market weight at about as early an age and can be fed profitably to about the same weights as the lard-type breeds. Mature boars (fig. 15) weigh from 700 to 1,000 pounds. Mature sows (fig. 16) weigh from 550 to 800 pounds.

The record association for recording hogs of this breed is the Tamworth Swine Association.

YORKSHIRE

There are two distinct types of the Yorkshire breed, known as Large and Middle Yorkshires. Both originated in England, where they are known as Large and Middle Whites. The Large Yorkshire greatly outnumbers the other and is the type raised by Yorkshire breeders in the United States.

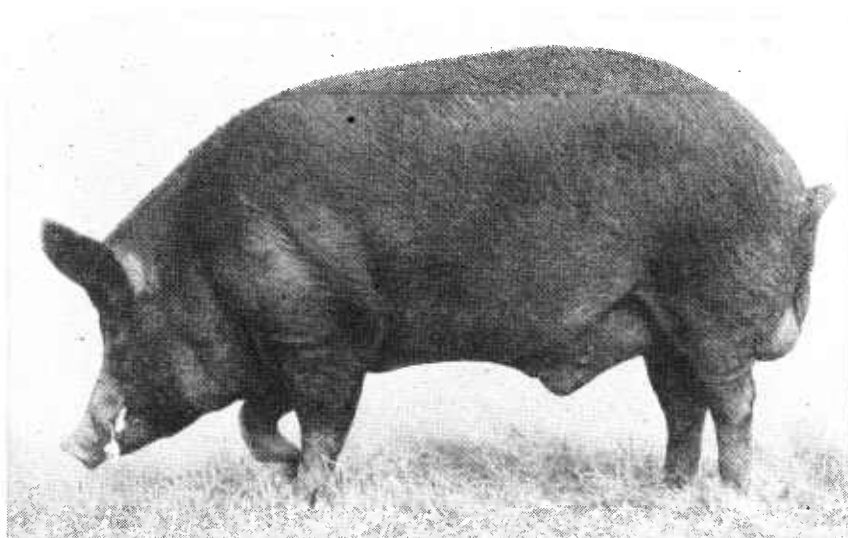
The color is white, but occasionally there are black pigment spots in the skin of animals of this breed. This does not disqualify them, yet it is objectionable from the standpoint of breeders of purebred stock. Mature boars (fig. 17) of this breed weigh from 700 to 1,000 pounds. Mature sows (fig. 18) should weigh from 500 to 800 pounds.

The American Yorkshire Club is the recording association for this breed.

MARKET HOGS

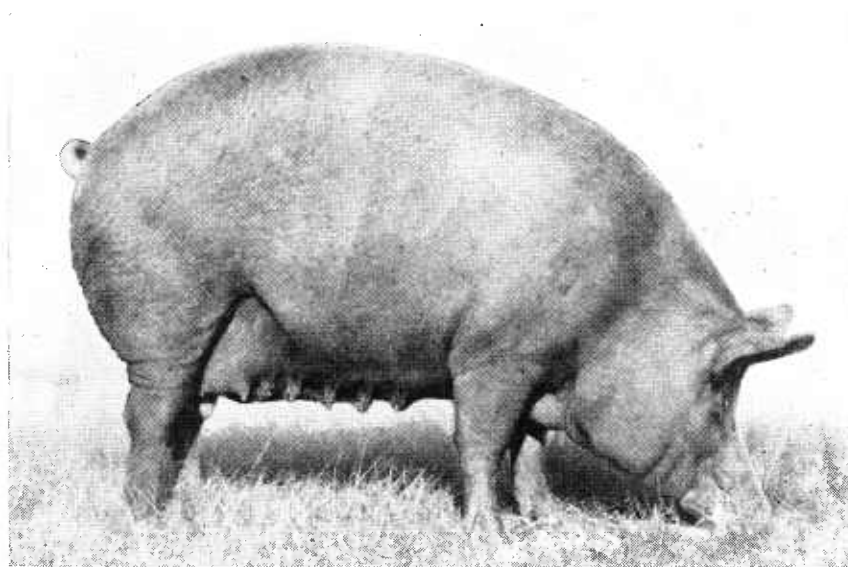
The ultimate aim of hog raising is the production of food for human consumption. Every producer of swine should have as his objective the efficient and economical production of hogs that dress out high-quality carcasses. The consumer demand is for a type of hog that furnishes a high percentage of the more valuable cuts of the carcass. The amount of fat should not be excessive, but just enough to make a firm carcass that handles well in trade channels and is attractive to the consumer. The most desirable weights for market hogs are found in the range from 180 to 240 pounds, and the greater percentage of hogs reaching market under normal conditions weigh between 200 and 225 pounds.

The intermediate-type hog, often referred to as the middle-of-the-road type, best meets the great bulk of market demands. Intermediate-type hogs in general are superior to those of small or large types at weights of 200 to 225 pounds. Small-type hogs at these weights are much too fat, while large-type hogs are not finished and must be carried to weights of 270 to 300 pounds to produce a finished carcass.



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FIGURE 15.—Tamworth boar.



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FIGURE 16.—Tamworth sow.

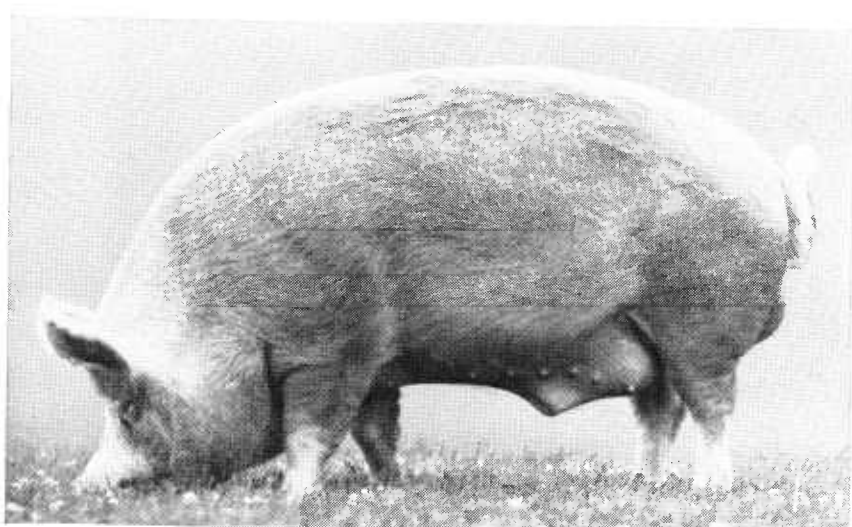


FIGURE 17.—Yorkshire boar.

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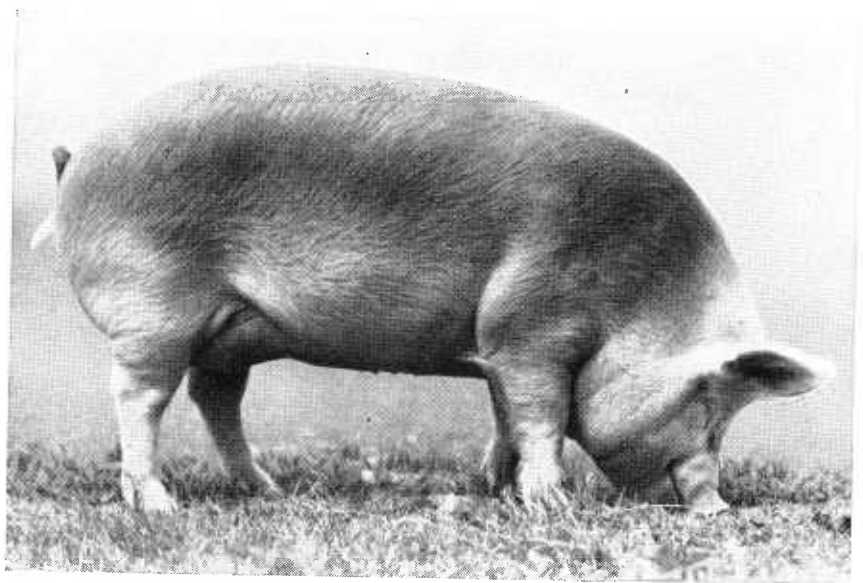


FIGURE 18.—Yorkshire sow.

Intermediate-type hogs should have good length and depth of body, with good spring of rib and uniform width of body. A long body, especially between shoulder and ham, with deep, smooth sides, a broad loin, a wide, well-developed ham and depth of ham carrying to within 2 inches of the hock, provides a desirable carcass. Such a hog on foot at a live weight of 225 pounds measures about 42 inches along the side from the base of the tail to a point between the ears, with depth of body back of the shoulders 14 to 15 inches, and width of body 11 to 12 inches. The legs should be of medium length and average about 12 inches from the elbow joint of the front leg to the toe. The carcass of such a hog measures at least 30 inches in length from the first rib at the breastbone to the aitch bone at the ham and is about 1.4 to 1.8 inches in average thickness of back fat when well finished. Live hogs that are much shorter than 40 inches are likely to be excessively fat when fed to weights of 200 to 225 pounds.

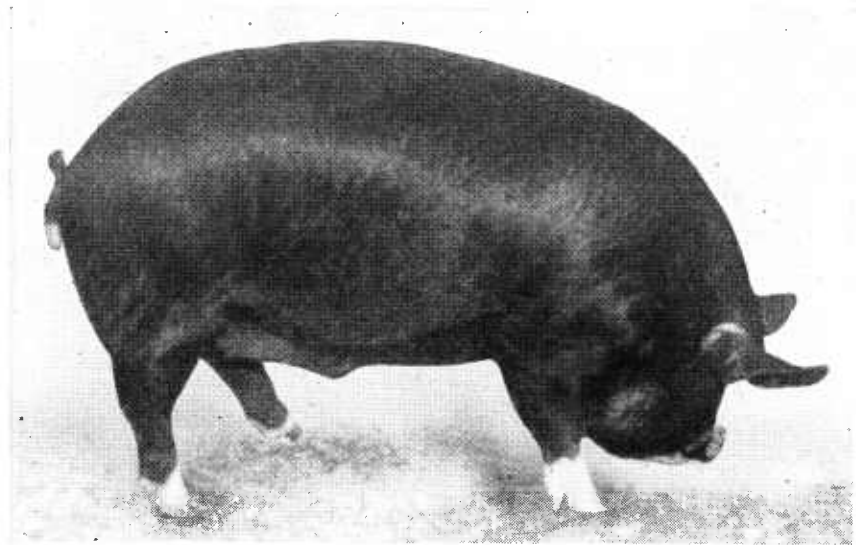


FIGURE 19.—Berkshire barrow.

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Market hogs of the above description are found in all breeds of swine. Figures 19 to 23, inclusive, show market barrows of various breeds at live weights of approximately 230 pounds. Foundation animals for the swine herd should be selected from strains that are prolific, have a feed-lot background for rapid growth, economical utilization of feed, and produce desirable carcasses. Hogs with these qualifications that are fed and handled under approved systems of feeding and management should be profitable to the producer and in demand by the consumer.

Many commercial producers follow the practice of cross-breeding hogs for the market. A good purebred sire of outstanding merit should be used, regardless of whether purebred or crossbred sows are maintained in the herd. Good purebred sires are the basis for improvement of swine, not only for producers of purebred hogs but for the producer of commercial hogs as well.

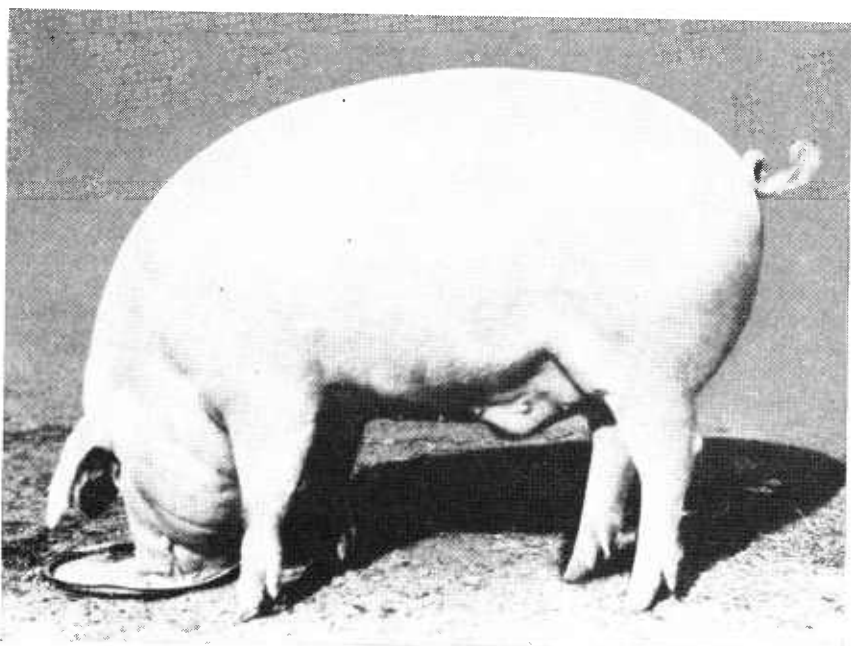


FIGURE 20.—Chester White barrow.

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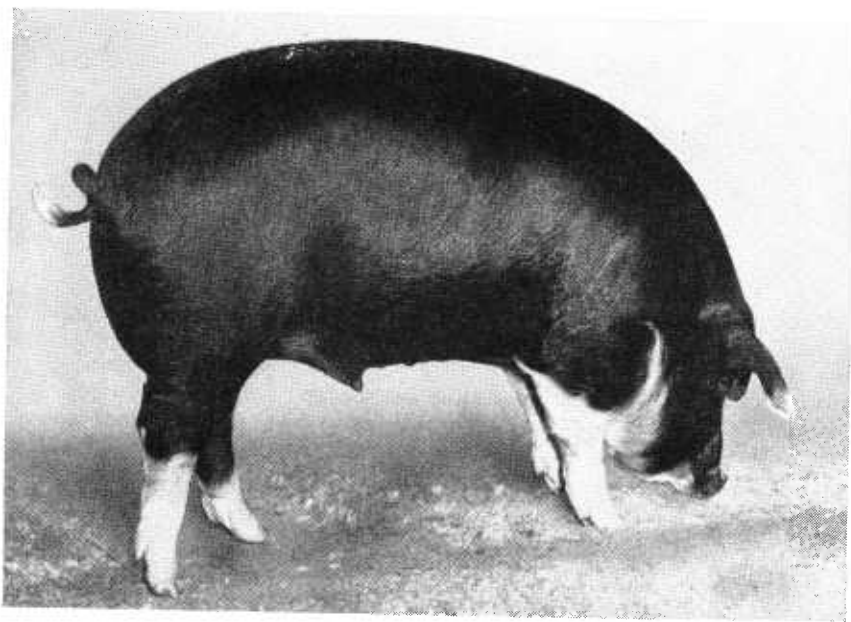


FIGURE 21.—Poland China barrow.

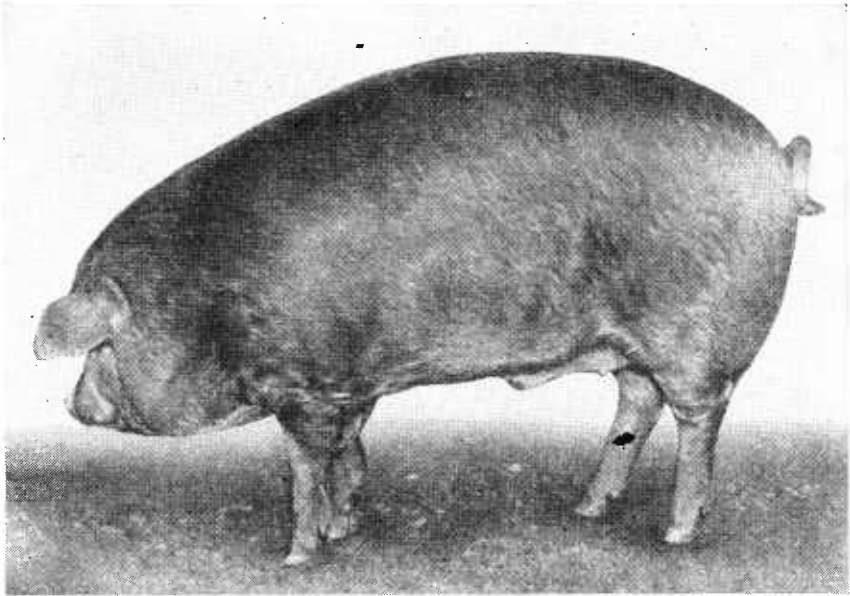


FIGURE 22.—Duroc barrow.

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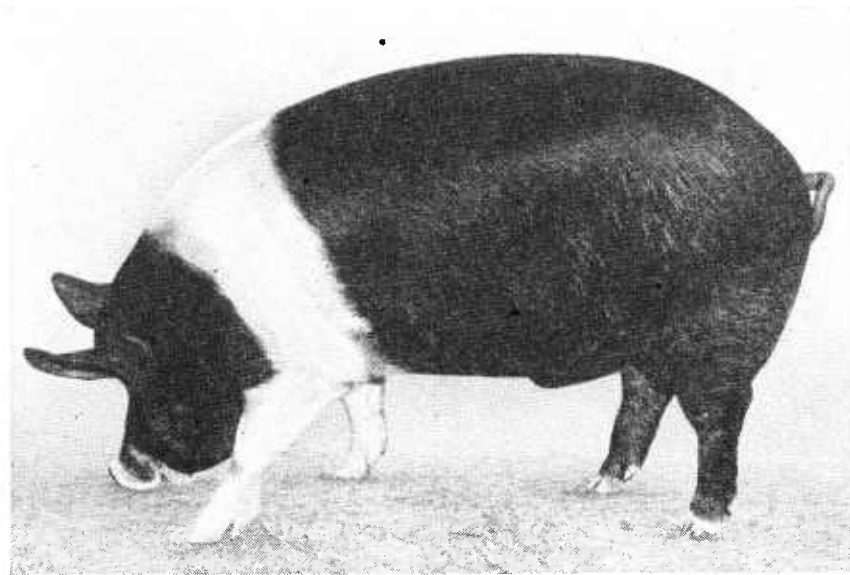


FIGURE 23.—Hampshire barrow.